ART. XI.—*A Microscopic Examination of the Viscera after the Operation of Gastro-Jejunostomy for Non-malignant Disease.* By W. J. GREER, F.R.C.S.I.; Honorary Consulting Surgeon Pontypool Hospital; Honorary Surgeon to In-Patients' Newport and Monmouthshire Hospital.

I DESIRE to present for the consideration of my surgical colleagues the result of my histological examination of the stomach and intestine in two cases of gastro-jejunos-tomy by Murphy's button for non-malignant disease of the stomach. The greater portion of section cutting and staining was carried out in the Pathological Laboratory of University College, Cardiff, and I am deeply indebted to Dr. H. A. Scholberg for his most valuable assistance in this work. The photomicrographs were prepared by myself in my own laboratory.

The patients from whom these specimens were removed were about forty and forty-five years of age respectively at the time of death; the operations were performed nearly four years previously. The patient known and designated hereafter in this paper as S. had suffered for many years from a very severe form of dyspepsia—acute pain and vomiting being the most prominent of the symptoms. The pain was so violent at times that a well-known London surgeon advised and carried out an exploration of the gall-bladder. No stones were found, nor did the patient receive any benefit from the operation. Another distinguished London surgeon was consulted, who recommended an operation on the stomach. The gastro-jejunos-tomy was then done with a large Murphy's button. One might almost believe that misfortune was predestined to attend this man, for the button never passed. It lodged in the cæcum and was removed by operation. This operation wound refused to heal, so a fistula remained to the day of his death. After the removal of the button an abscess formed about two inches above the centre of Poupart's ligament on the *left* side. This was opened, and a second fistula resulted, which

occasionally closed. Later on, yet another fistula, for some rice which he had taken was passed per urethram. It was a sight that one would remember to see this ill-fated man drinking a cup of cocoa and then using another vessel at the cæcal fistula to collect it. Truly "after life's fitful fever he sleeps well."

The *post-mortem* revealed such a condition of things as will readily account for the untoward results of the operation. The peritoneum, as such, had quite disappeared; all the abdominal organs were set in a thick, dense, almost cartilagenous, mass of fibrous tissue, the viscera were barely distinguishable, and it required a prolonged, careful dissection to remove them. The great omentum existed as occasional islets of fat scattered over the intestines and abdominal wall. The stomach was densely adherent to the abdominal wall, the pylorus in about the normal situation, the organ not dilated but thinned, the button stoma being the most dependent part. The junction situated about two and a half inches from the pylorus and appeared to be on the posterior surface, the circular area of its attachment half an inch; it was firm and secure; from stomach to jejunum it admitted a No. 12 catheter; from the jejunum it admitted a No. 3 catheter. The pylorus will just admit about a No. 16 catheter. The junction with the jejunum was situated nearly twelve inches from its beginning. There were no ulcers or cicatrices to be seen in either stomach or intestines.

The other abdominal organs were healthy. The bladder, as before mentioned, had an opening into it from a loop of ileum. A finger could be passed from the cæcal fistula and another finger from the fistula on the left side, so as to meet in the loop of ileum at its opening into the bladder. Death was due to exhaustion.

This case probably illustrates the most unrelenting form of non-malignant disease that can be dealt with by the operation of gastro-jejunosomy. It speaks much in favour of the button that it effected a junction, considering the thinness and atrophy of the organs.

The second case, known as Fr., had been under treatment for about two years for stomach trouble, the chief symptoms being pain and vomiting about an hour after food. The patient was so distressed, and was losing ground so rapidly, that I determined to operate; a posterior gastro-jejunostomy by Murphy's button was done. The stomach was much dilated, and the pylorus was involved in a rather large mass of fibrous tissue, with adhesions. The patient got well rapidly; the button passed duly. He reported himself to me from time to time. He had increased in weight, and said that he enjoyed exceedingly good health. He expressed himself as thoroughly satisfied with the result of the operation.

About three years after this operation he died rather suddenly from an attack of cerebral hæmorrhage. His medical attendant was kind enough to inform me of this, and a *post-mortem* was made without delay. The stomach was very much smaller, the mass surrounding the pylorus was much less. In contracting it had almost completely closed the pylorus. So hard was this mass that after being embedded in paraffin it became so brittle as to fail to give any kind of a section. Unfortunately, the pylorus in this case is lost. No ulcers or cicatrices were to be seen in the interior of the stomach. The pylorus admitted about a No. 1 catheter. The button stoma was freely dilatable; a thumb easily passed into the jejunum. There were no other adhesions. The remaining organs were healthy.

This case is, of course, in an entirely different category to the last. It illustrates the favourable result of the operation, given favourable conditions. It is in sharp contrast to the first case, where I think that no surgical procedure would have had the slightest ameliorating influence on the disease.

Clinical experience proves beyond any doubt that the operation has a remarkably beneficent effect on the large majority of patients. Nevertheless it would appear from an examination of these sections that, though it is possible

that there may be an arrest of the original disorder, there does not seem to be any return to normal histological structure. This is rather what one would expect, having in mind the destructive effect of chronic inflammatory processes in other organs.

Now, though it would be unreasonable to argue that similar results as regards structure exist after all cases of gastro-jejunostomy, still the sections will provide some material for consideration. In some of the photomicrographs undoubted artefacts are recorded. Yet on the whole they are fairly credible witnesses of truth.

ART. XII.—*Some Points on the Diagnosis of Scarlet Fever.*^a (Derived from Clinical Observation of 1,005 Consecutive Cases.) By G. ALLAN CROWLEY, B.A., M.D. Univ. Dubl.

THE prevalence and widespread distribution of scarlet fever, the seriousness of the conditions that not infrequently complicate this disease, and the extreme liability of children to infection, are factors all of which render it a study worthy of the close attention of the practitioner.

In the following remarks, based on a personal observation of 1,005 consecutive cases, I have attempted to emphasise the leading features of the disease, and draw attention to the points on which a reliable diagnosis may be formed.

For practical purposes, and for the better understanding of the disease, scarlet fever may be classified into three clinical varieties, viz.—(1) simple, (2) septic, (3) toxic.

This classification, designed by Dr. Caiger, is, of course, artificial to a certain extent, for, with perhaps the exception of those very rare cases of the fulminating toxic type, the three varieties merge into each other, and many intermediary cases will be noticed.

^a A Thesis read for the Degree of M.D. in the University of Dublin on March 2, 1908.